

**DECLARATION, POWER OF ATTORNEY, AND PETITION**

I, a below named inventor, depose and say that: (1) my residence, citizenship, and mailing address are indicated below; (2) I have reviewed and understand the contents of my patent application, including the claims, as amended by any amendment specifically referred to herein, which is identified as U.S. Patent Application Serial No. 09/312,917, filed May 17, 1999; (3) I believe that the other below named inventors and I are the original, first, and joint inventors or discoverers of the invention or discovery in

**REFLECTIVE LCD PROJECTION SYSTEM USING WIDE-ANGLE CARTESIAN  
POLARIZING BEAM SPLITTER**

described and claimed therein and for which a patent is sought; and (4) this application in part discloses and claims subject matter disclosed in my earlier filed patent application, Serial No. 08/958,329, entitled "Optical Film", filed October 28, 1997, and Serial No. 09/126,917, entitled "Post-formable MOF and Method of Forming", filed July 31, 1998 and claims priority to those applications; (5) I hereby acknowledge my duty to disclose to the Patent and Trademark Office all information known to me to be material to the patentability as defined in Title 37, Code of Federal Regulations, §1.56.\*; and (6) I hereby acknowledge my duty to disclose to the Patent and Trademark Office material information as defined in Title 37, Code of Federal Regulations, §1.56.\* which occurred between the filing date of said earlier application and the filing date of this application.

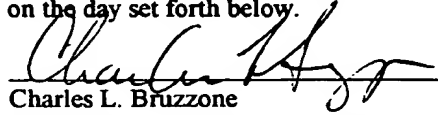
No application for patent or inventor's certificate on said common or said non-common subject matter has been filed by us or our representatives or assigned in any country foreign to the United States of America, except as follows:


I hereby appoint Gregory D. Allen (Reg. No. 35,048), Scott A. Bardell (Reg. No. 39,594), Carolyn A. Bates (Reg. No. 27,853), Stephen W. Bauer (Reg. No. 32,192), Dale A. Bjorkman (Reg. No. 33,084), Jennie G. Boeder (Reg. No. 28,952), William J. Bond (Reg. No. 32,400), Stephen W. Buckingham (Reg. No. 30,035), Paul W. Busse (Reg. No. 32,403), Gerald F. Chernivec (Reg. No. 26,537), James D. Christoff (Reg. No. 31,492), David R. Cleveland (Reg. No. 29,524), Philip Y. Dahl (Reg. No. 36,115), Charles L. Dennis II (Reg. No. 30,555), Janice L. Dowdall (Reg. No. 31,201), Lisa M. Fagan (Reg. No. 40,601), Darla P. Fonseca (Reg. No. 31,783), John A. Fortkort (Reg. No. 38,454), Matthew J. Goggin (Reg. No. 44,125), Melanie G. Gover (Reg. No. 41,793), Gary L. Griswold (Reg. No. 25,396), Doreen S. L. Gwin (Reg. No. 35,580), H. Sanders Gwin (Reg. No. 33,242), Michaele A. Hakamaki (Reg. No. 40,011), Karl G. Hanson (Reg. No. 32,900), Néstor F. Ho (Reg. No. 39,460), Jeffrey J. Hohenshell (Reg. No. 34,109), Robert W. Hoke (Reg. No. 29,226), John H. Hornickel (Reg. No. 29,393), MarySusan Howard (Reg. No. 38,729), Stephen C. Jensen (Reg. No. 35,207), Robert H. Jordan (Reg. No. 31,973), Harold C. Knecht III (Reg. No. 35,576), Kent S. Kokko (Reg. No. 33,931), Charles D. Levine (Reg. No. 32,477), Douglas B. Little (Reg. No. 28,439), Eloise J. Maki (Reg. No. 33,418), Lisa M. McGeehan (Reg. No. 41,185), Matthew B. McNutt (Reg. No. 39,766), Michelle M. Michel (Reg. No. 33,968), William D. Miller (Reg. No. 37,988), Peter L. Olson (Reg. No. 35,308), Daniel R. Pastirik (Reg. No. 33,025), David B. Patchett (Reg. No. 39,326), Carolyn V. Peters (Reg. No. 33,271), Scott R. Pribnow (Reg. No. 43,869), Terryl K. Qualey (Reg. No. 25,148), Ted K. Ringsred (Reg. No. 35,658), James A. Rogers (Reg. No. 37,228), Daniel C. Schulte (Reg. No. 40,160), Steven E. Skolnick (Reg. No. 33,789), Robert W. Sprague (Reg. No. 30,497), Brian E. Szymanski (Reg. No. 39,523), James J. Trussell (Reg. No. 37,251), F. Andrew Ubel (Reg. No. 36,704), and Lucy C. Weiss (Reg. No. 32,834), my attorneys and/or agents with full powers (including the powers of appointment, substitution, and revocation) to prosecute this application and any division, continuation, continuation-in-part, reexamination, or reissue thereof, and to transact all business in the Patent and Trademark Office connected therewith; the mailing address and the telephone number of the above-mentioned attorneys and/or agents are

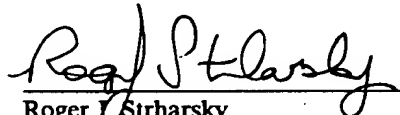
Attention: Néstor F. Ho  
Office of Intellectual Property Counsel  
3M Innovative Properties Company  
P.O. Box 33427  
St. Paul, Minnesota 55133-3427  
Telephone No. 512-984-7443


The undersigned petitioner declares further that all statements made herein of his own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

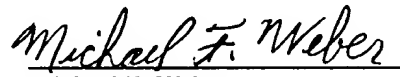
Wherefore, I pray for grant of Letters Patent for the invention or discovery described and claimed in the aforesaid specification and we hereby subscribe our names to the foregoing specification and claims, declaration, power of attorney, and this petition, on the day set forth below.

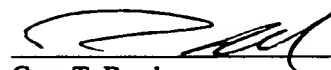
 7/21/99  
 Charles L. Bruzzone Date  
 Residence: Woodbury, Minnesota U.S.A.  
 Citizenship: U.S.A.  
 Post Office P.O. Box 33427  
 Address: St. Paul, Minnesota 55133-3427

 7/14/99  
 David J. W. Aastuen Date  
 Residence: Farmington, Minnesota U.S.A.  
 Citizenship: U.S.A.  
 Post Office P.O. Box 33427  
 Address: St. Paul, Minnesota 55133-3427

 7/14/99  
 Roger J. Strharsky Date  
 Residence: Woodbury, Minnesota U.S.A.  
 Citizenship: U.S.A.  
 Post Office P.O. Box 33427  
 Address: St. Paul, Minnesota 55133-3427

 7/14/99  
 Stephen K. Eckhardt Date  
 Residence: Austin, Texas U.S.A.  
 Citizenship: U.S.A.  
 Post Office P.O. Box 33427  
 Address: St. Paul, Minnesota 55133-3427

 7/21/99  
 Michael F. Weber Date  
 Residence: Shoreview, Minnesota U.S.A.  
 Citizenship: U.S.A.  
 Post Office P.O. Box 33427  
 Address: St. Paul, Minnesota 55133-3427

 7-13-99  
 Gary T. Boyd Date  
 Residence: Woodbury, Minnesota U.S.A.  
 Citizenship: U.S.A.  
 Post Office P.O. Box 33427  
 Address: St. Paul, Minnesota 55133-3427

**§1.56 Duty to disclose information material to patentability.**

(a) A patent by its very nature is affected with a public interest. The public interest is best served, and the most effective patent examination occurs when, at the time an application is being examined, the Office is aware of and evaluates the teachings of all information material to patentability. Each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith in dealing with the Office, which includes a duty to disclose to the Office all information known to that individual to be material to patentability as defined in this section. The duty to disclose information exists with respect to each pending claim until the claim is cancelled or withdrawn from consideration, or the application becomes abandoned. Information material to the patentability of a claim that is cancelled or withdrawn from consideration need not be submitted if the information is not material to the patentability of any claim remaining under consideration in the application. There is no duty to submit information which is not material to the patentability of any existing claim. The duty to disclose all information known to be material to patentability is deemed to be satisfied if all information known to be material to patentability of any claim issued in a patent was cited by the Office or submitted to the Office in the manner prescribed by §§ 1.97(b)-(d) and 1.98. However, no patent will be granted on an application in connection with which fraud on the Office was practiced or attempted or the duty of disclosure was violated through bad faith or intentional misconduct. The Office encourages applicants to carefully examine:

- (1) prior art cited in search reports of a foreign patent office in a counterpart application, and
- (2) the closest information over which individuals associated with the filing or prosecution of a patent application believe any pending claim patentably defines, to make sure that any material information contained therein is disclosed to the Office.

(b) Under this section, information is material to patentability when it is not cumulative to information already of record or being made of record in the application, and

- (1) It establishes, by itself or in combination with other information, a prima facie case of unpatentability of a claim; or
- (2) It refutes, or is inconsistent with, a position the applicant takes in:
  - (i) Opposing an argument of unpatentability relied on by the Office, or
  - (ii) Asserting an argument of patentability.

A prima facie case of unpatentability is established when the information compels a conclusion that a claim is unpatentable under the preponderance of evidence, burden-of-proof standard, giving each term in the claim its broadest reasonable construction consistent with the specification, and before any consideration is given to evidence which may be submitted in an attempt to establish a contrary conclusion of patentability.

(c) Individuals associated with the filing or prosecution of a patent application within the meaning of this section are:

- (1) Each inventor named in the application;
- (2) Each attorney or agent who prepares or prosecutes the application; and
- (3) Every other person who is substantively involved in the preparation or prosecution of the application and who is associated with the inventor, with the assignee or with anyone to whom there is an obligation to assign the application.

(d) Individuals other than the attorney, agent or inventor may comply with this section by disclosing information to the attorney, agent, or inventor.

ASSIGNMENT

Whereas We, the below named inventors, with residences and citizenships as indicated below; have made an invention in

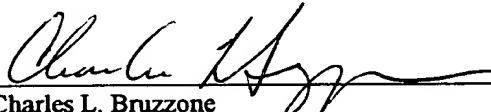
**REFLECTIVE LCD PROJECTION SYSTEM USING WIDE-ANGLE CARTESIAN  
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and have executed an application for Letters Patent of the United States of America based thereon; which application is identified in the United States Patent and Trademark Office as U.S. Application Serial No. 09/312,917, filed May 17, 1999;

Now, therefore, for good and valuable consideration, receipt of which is acknowledged, we have individually and jointly agreed to assign and transfer and do hereby assign and transfer unto the 3M INNOVATIVE PROPERTIES COMPANY, a wholly owned subsidiary of MINNESOTA MINING AND MANUFACTURING COMPANY, and a corporation of Delaware, having its principal office at Saint Paul, Minnesota, its successors and assigns, the entire right, title, and interest in and to the said invention and application, and in and to any division or continuation (in whole or in part) of said application, and in and to any and all improvements in the said invention made by us or any of us or made jointly with others (provided any such improvement is made during, or within one year after the termination of, the employment by Minnesota Mining and Manufacturing Company and any of its existing or future subsidiaries of whichever of us, solely or jointly with one or more others, has made the same), and in and to any and all Letters Patent, reexaminations, reissues, or extensions thereof, of the United States of America and countries foreign thereto (including the right to apply for Letters Patent, Utility Models, or Inventors' Certificates in foreign countries in its own name and to claim any priority rights for such foreign applications to which such applications are entitled under international conventions, treaties, or otherwise), which have been or may be granted thereon or on any divisional, continuation (in whole or in part), renewal, reexamination, reissue, or other or further application based in whole or in part upon the said invention or improvements thereon, to be held and enjoyed as fully and exclusively as they would have been by us or any of us had this assignment and transfer not been made,

We do further agree for ourselves and for our heirs, executors, and administrators, to execute and deliver without further consideration any further applications, assignments, and documents, and to perform such other acts as we lawfully may, that may be deemed necessary by the said Company, its successors, assigns, and nominees, fully to secure its right, title, and interest as aforesaid and to obtain or maintain Letters Patent, Utility Models, or Inventors' Certificates in any and all countries;

And we do hereby authorize and request the Commissioner of Patents to issue any and all Letters Patent which may be granted upon any of the said applications, to the said 3M Innovative Properties Company, as the assignee of the entire right, title, and interest therein.



Charles L. Bruzzone

Residence: Woodbury, Minnesota U.S.A.

Citizenship: U.S.A.

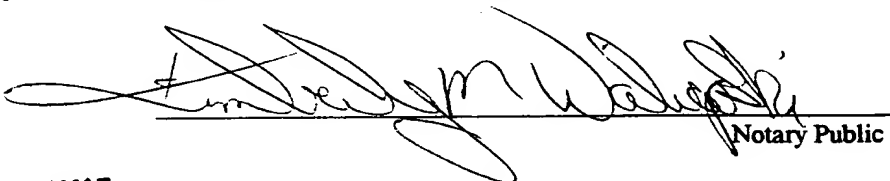
STATE OF MINNESOTA )

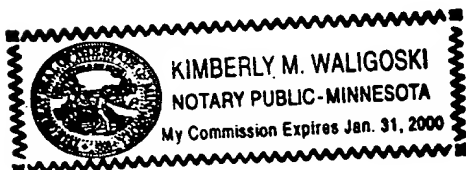
) ss.

COUNTY OF RAMSEY )

On this 13<sup>th</sup> day of July 1999, before me personally appeared the above-named Charles L. Bruzzone, personally known by me, and known by me to be the person described in and who executed the foregoing instrument, and who acknowledged that said person executed the same as said person's free act and deed, on the day and year aforesaid.

(Seal)

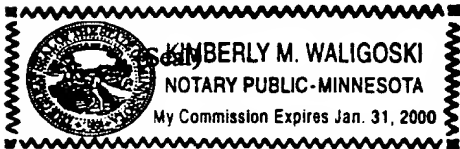
  
Notary Public



David J. W. Aastuen  
 David J. W. Aastuen  
 Residence: Farmington, Minnesota U.S.A.  
 Citizenship: U.S.A.

STATE OF MINNESOTA )  
 ) ss.  
 COUNTY OF RAMSEY )

On this 14<sup>th</sup> day of July 1999, before me personally appeared the above-named David J. W. Aastuen, personally known by me, and known by me to be the person described in and who executed the foregoing instrument, and who acknowledged that said person executed the same as said person's free act and deed, on the day and year aforesaid.

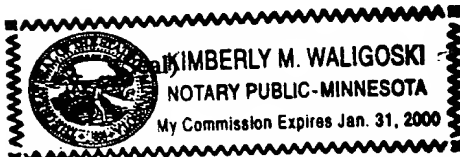


Kimberly M. Waligowski  
 Notary Public

Roger J. Strharsky  
 Roger J. Strharsky  
 Residence: Woodbury, Minnesota U.S.A.  
 Citizenship: U.S.A.

STATE OF MINNESOTA )  
 ) ss.  
 COUNTY OF RAMSEY )

On this 14<sup>th</sup> day of July 1999, before me personally appeared the above-named Roger J. Strharsky, personally known by me, and known by me to be the person described in and who executed the foregoing instrument, and who acknowledged that said person executed the same as said person's free act and deed, on the day and year aforesaid.

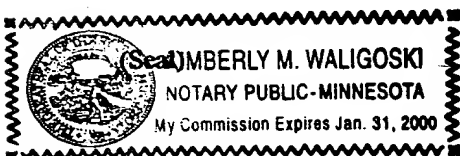


Kimberly M. Waligowski  
 Notary Public

Stephen K. Eckhardt  
 Stephen K. Eckhardt  
 Residence: Austin, Texas U.S.A.  
 Citizenship: U.S.A.

STATE OF TEXAS )  
 ) ss.  
 COUNTY OF TRAVIS )

On this 14<sup>th</sup> day of July 1999, before me personally appeared the above-named Stephen K. Eckhardt, personally known by me, and known by me to be the person described in and who executed the foregoing instrument, and who acknowledged that said person executed the same as said person's free act and deed, on the day and year aforesaid.



Kimberly M. Waligowski  
 Notary Public

Michael F. Weber

Michael F. Weber

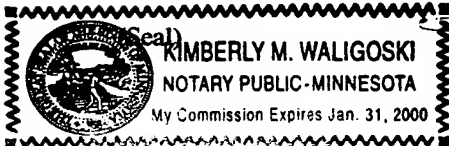
Residence: Shoreview, Minnesota U.S.A.

Citizenship: U.S.A.

STATE OF MINNESOTA )  
 ) ss.

COUNTY OF RAMSEY )

On this 21<sup>st</sup> day of July 1997, before me personally appeared the above-named Michael F. Weber, personally known by me, and known by me to be the person described in and who executed the foregoing instrument, and who acknowledged that said person executed the same as said person's free act and deed, on the day and year aforesaid.



Kimberly M. Waligowski

Notary Public

Gary T. Boyd

Gary T. Boyd

Residence: Woodbury, Minnesota U.S.A.

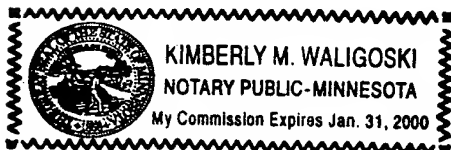
Citizenship: U.S.A.

STATE OF MINNESOTA )  
 ) ss.

COUNTY OF RAMSEY )

On this 13<sup>th</sup> day of July 1997, before me personally appeared the above-named Gary T. Boyd, personally known by me, and known by me to be the person described in and who executed the foregoing instrument, and who acknowledged that said person executed the same as said person's free act and deed, on the day and year aforesaid.

(Seal)



Kimberly M. Waligowski

Notary Public

49837USA2G/035



UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office  
ASSISTANT SECRETARY AND COMMISSIONER  
OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

OCTOBER 13, 1999

PTAS

3M INNOVATIVE PROPERTIES COMPANY  
NESTOR F. HO  
OFFICE OF INTELLECTUAL PROPERTY COUNSEL  
P.O. BOX 33427  
ST. PAUL, MINNESOTA 55133-3427



\*101116684A\*

UNITED STATES PATENT AND TRADEMARK OFFICE  
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

41 U.S. PTO  
09/746933  
12/22/00

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 08/06/1999

REEL/FRAME: 010156/0721  
NUMBER OF PAGES: 4

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:  
BRUZZONE, CHARLES L.

DOC DATE: 07/13/1999

ASSIGNOR:  
AASTUEN, DAVID J.W.

DOC DATE: 07/14/1999

ASSIGNOR:  
STRHARSKY, ROGER J.

DOC DATE: 07/14/1999

ASSIGNOR:  
ECKHARDT, STEPHEN K.

DOC DATE: 07/14/1999

ASSIGNOR:  
WEBER, MICHAEL F.

DOC DATE: 07/21/1999

ASSIGNOR:  
BOYD, GARY T.

DOC DATE: 07/13/1999

OFFICE OF INTELLECTUAL  
PROPERTY COUNSEL  
3M INNOVATIVE PROPERTIES COMPANY

RECEIVED  
NOV 11 1999  
NESTOR F. HO

NOV 01 1999

REFERRED TO NFH  
*and*